

REMARKS

This responds to the Office Action mailed on November 30, 2005. Reconsideration is respectfully requested.

Claims 1, 2, 5, 7 – 13, 20 – 21, 25, 28 and 29 are amended, no claims are canceled, and no claims are added; as a result, claims 1 – 30 remain pending in this application. No new matter is introduced by the amendment to the claims.

Objections to the Drawings

The drawings were objected to as failing to comply with 37 C.F.R. 1.84(p). The drawings have been amended to address the issues noted by the Examiner. Applicant thanks the Examiner for pointing out these issues. Replacement sheets have been submitted herewith. No new matter is introduced by these amendments to the drawings.

In FIG. 1, reference character 106 has been removed from the NIC/Transceiver, and the words ‘NIC/Transceiver’ have been replaced with ‘Wireless Network Interface’ to conform to the specification. The Wireless Network Interface is now designated by single reference character 110, which conforms to the specification.

In FIG. 1, the reference character 106 for the Requestors has been changed to reference characters 106A, 106B and 106C.

In FIG. 1, reference character 106 has been removed from the memory controller (MC). The memory controller (MC) is now designated by single reference character 104, which conforms to the specification.

In FIG. 4, the left output branch of decision box 406 has been labeled.

In view of the above, Applicant submits that the objections to the drawings has been overcome.

Amendments to the Specification

The amendments to the specification conform the specification to the amended figures. No new matter is introduced by the amendments to the specification.

Objections to the Claims

Claims 9 and 10 were objected to due to informalities. Claims 9 and 10 have been amended to correct the informalities noted by the Examiner. Applicant thanks the Examiner for pointing out these informalities. Applicant submits that the objection to claims 9 and 10 has been overcome.

§112 Rejection of the Claims

Claims 20-23 and 25-27 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Claims 20, 21 and 25 have been amended to clarify the issues noted by the Examiner. In claim 20, the word “activity” has been deleted, and in claims 21 and 25, the word “on” has been inserted. Applicant thanks the Examiner for pointing out these issues and submits that the rejection of claims 20-23 and 25-27 under 35 U.S.C. § 112, second paragraph has been overcome.

Allowable Subject Matter

Claims 2, 5, 7, 8, 10, 11, 13-19, 29 and 30 were objected to as being dependent upon a rejected base claim, but were indicated to be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim 24 was indicated to be allowed. Claims 25 – 27 are believed to be allowable at least because of their dependency on claim 24 and because the rejection of claims 25 – 27 under 35 U.S.C. § 112, second paragraph is believed to have been overcome.

Claim 2 has been rewritten in independent form to include the limitations of base claim 1 and is therefore believed to be allowable.

Claims 5, 8, 10 and 11 have been rewritten in independent form to include the limitations of base claim 1 and intervening claims 3 and 4 and is therefore believed to be allowable.

Claim 7 has been rewritten in independent form to include the limitations of base claim 1 and intervening claims 3, 4 and 6 and is therefore believed to be allowable.

Claim 13 has been rewritten in independent form to include the limitations of base claim 12 and is therefore believed to be allowable. Claims 14 – 19 are also believed to be allowable at least because of their dependency on claim 13.

Claim 29 has been rewritten in independent form to include the limitations of base claim 28 and is therefore believed to be allowable. Claim 30 is also believed to be allowable at least because of its dependency on claim 29.

Claims 21 - 23

Claims 21 – 23 have neither been stated to be allowable nor have claims 21 – 23 been rejected either under 35 U.S.C. § 102(b) or under 35 U.S.C. § 103(a). Claims 21 – 23 have been rejected because they depend from claim 20, which has been rejected under 35 U.S.C. § 112, second paragraph. Claim 21 has also been rejected under 35 U.S.C. § 112, second paragraph. Claim 21 has been rewritten in independent form to include the limitations of base claim 20 and is believed to be allowable because the rejection of claim 20 under 35 U.S.C. § 112, second paragraph is believed to have been overcome. Claims 22 and 23 are also believed to be allowable at least because of their dependency on claim 21.

§102 and §103 Rejection of the Claims

Claims 1, 3, 4, 6, 9, 12 and 20 were rejected under 35 U.S.C. § 102(b) as being anticipated by Kamemaru (U.S. 6,341,334 B1). Claim 28 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Kamemaru in view of “what was well known in the art.”

Claim 1 is directed to a method comprising predicting when to generate a bus request based on either unused bus cycles that were granted to a requestor or a number of bus transactions utilized by the requestor.

Claim 12 is directed to a memory controller that includes first logic circuitry to generate one or more indicators based on either unused bus cycles that were granted to a requestor or a number of bus transactions utilized by the requestor, and second logic circuitry to predict when to generate a bus request based on one of the indicators.

Claim 20 is directed to a processing system that includes an arbiter and a memory controller. The arbiter generates a bus-activity indicator indicating activity of a system bus

during a prior system-bus observation window. The memory controller predicts when to generate a bus request based on the bus-activity indicator and based on either unused bus cycles that were granted to a requestor or a number of bus transactions utilized by the requestor. The memory controller also generates the bus request ahead-of-time based on the prediction.

Claim 28 is directed to an article comprising a storage medium having stored thereon instructions, that when executed by a computing platform, result in predicting when to generate a bus request based on either unused bus cycles that were granted to a requestor or a number of bus transactions utilized by the requestor.

Applicant's independent claims 1, 12, 20 and 28 recite predicting when to generate a bus request based on either unused bus cycles that were granted to a requestor or a number of bus transactions utilized by the requestor. Kamemaru does not teach, suggest or motivate the predicting of when to generate a bus request based on either unused bus cycles that were granted to a requestor or a number of bus transactions utilized by the requestor. Kamemaru discloses the prediction of request signals, particularly the content of the request signals (see abstract of Kamemaru). Kamemaru generates a prediction signal based on a transaction history (see FIG. 16 of Kamemaru and column 20 line 52 through column 21 line 19). The transaction history of Kamemaru does not relate to unused bus cycles, which is an indicator of bus-usage efficiency, nor does the transaction history of Kamemaru relate to the number of utilized bus transactions, which is an indicator of bus bandwidth usage. In Kamemaru, transaction history is based on actual load using weak (W) and strong (S) high load flags (see table 1 in column 21). Kamemaru's transaction history does not relate to the *unused* bus cycles that were granted to a requestor, nor does it relate to bus transactions *utilized* by the requestor. Furthermore, Kamemaru's prediction is not generated by the requestor; it is generated by a request prediction unit, which is common to all requestors (see FIGs. 8 and 16 of Kamemaru and column 20, lines 52 - 67).

In view of the above, Applicant submits that the rejection of claims 1, 12, 20 and 28 under either 35 U.S.C. § 102(b) or 35 U.S.C. § 103(a) has been overcome and that claims 1, 12, 20 and 28 are in condition for allowance. Applicant also submits that claims 3, 4, 6, 9 are allowable at least because of their dependency on claim 1.

Conclusion

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicants' attorney, Greg Gorrie at (480) 659-3314, or Applicants' below-named representative to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

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CERTIFICATE UNDER 37 C.F.R. 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: MS Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 30th day of January 2006.

Amy Moriarty

Name

Signature

IN THE DRAWINGS

Corrected formal drawings are supplied herewith, each labeled as “REPLACEMENT SHEET”.

In FIG. 1, reference character 106 has been removed from the NIC/Transceiver, and the words ‘NIC/Transceiver’ have been replaced with ‘Wireless Network Interface’ to conform to the specification. The Wireless Network Interface is now designated by single reference character 110, which conforms to the specification.

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In FIG. 4, the left output branch of decision box 406 has been labeled.